

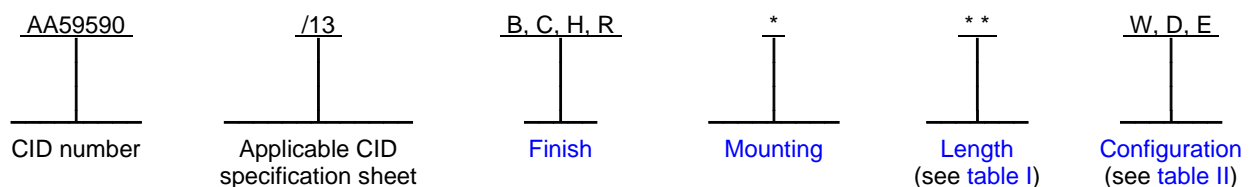
COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WEDGE MOUNTING BODY

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of [A-A-59590](#).

CLASSIFICATION/PART IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see [notes](#) herein).



Example: AA59590/13HV28W is the PIN for a hard black anodize finished, 2.8 inch (71.1 mm) long card holder. The card holder also features two tapped mounting holes for use with 2–56 UNC 2B fasteners and a lockwasher and flat washer under the screw head for added resistance to loosening.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card assembly firmly in its installed position. When the card holder is installed properly, it is capable of withstanding 60g/6ms of shock, 25 G-rms of vibration, and provides from 2 to 4 degrees C/W/inch thermal resistance transfer between the circuit card assembly and the heat sink surfaces.

Material. Unless otherwise specified herein, the card holder materials shall be as specified in [A-A-59590](#).

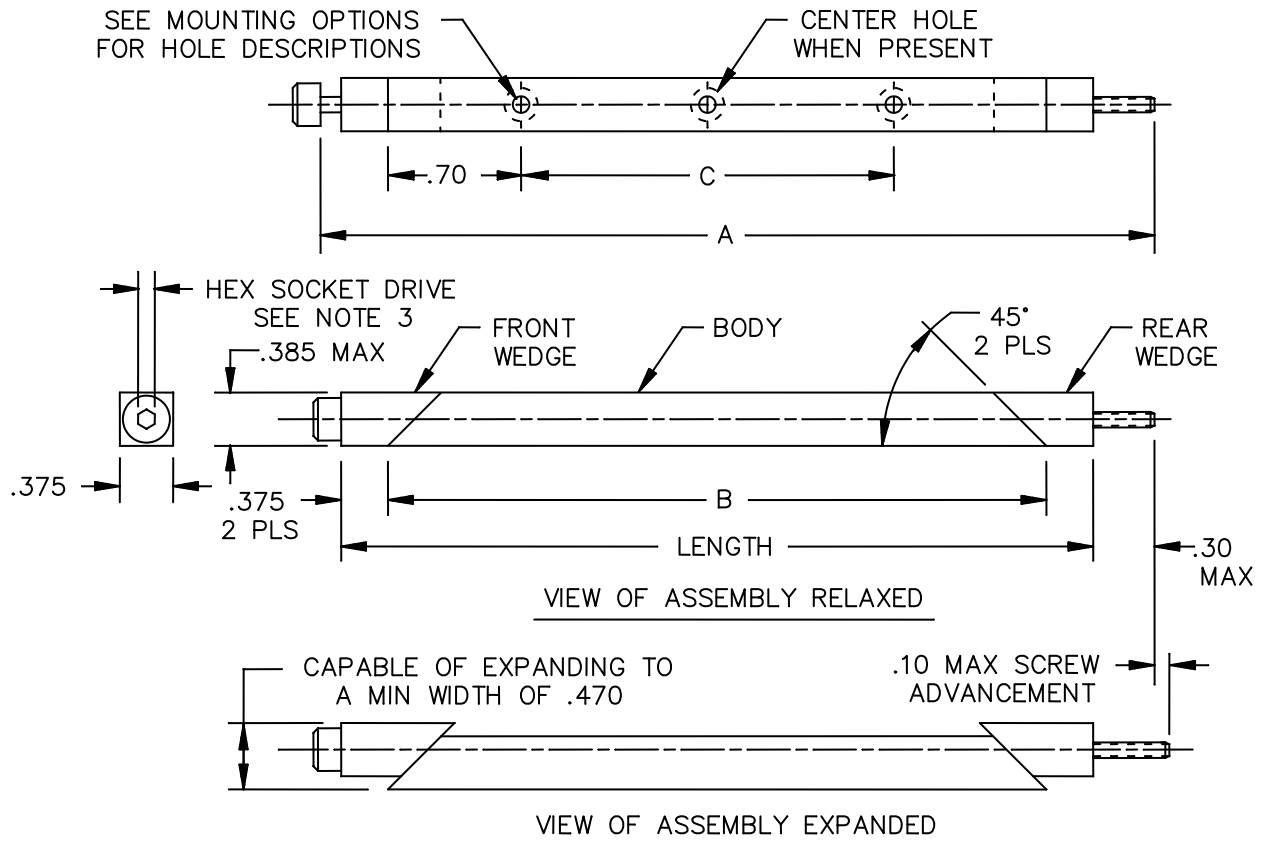
Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on [figures 1, 2, and 3](#), in [table I](#), and [A-A-59590](#).

Actuating screw hex drive socket. The across flats dimension for the hex drive socket shall be as follows: .140 inch (3.56 mm) for mounting options "J", "N", "T", "R", "V", and "S" and 3.0 mm (0.118 inch) for mounting options "G" and "M".

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of each card holder shall be as follows: 16 to 20 inch-pounds (1.8 to 2.3 N-m) for assemblies using no options or configuration "W" and 17 to 21 inch-pounds (1.9 to 2.5 N-m) for assemblies of configurations "E" or "D".

Cold plate slot width dimensions (when applicable). The recommended cold plate slot width to accommodate the circuit card assembly with attached card holder is .425 inch (10.80 mm) plus the thickness of the printed board of the circuit card assembly (see [A-A-59590](#)).





Inches	mm	Inches	mm	Inches	mm
.10	2.5	.375	9.5	.470	11.9
.20	5.1	.385	9.8	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are ± 0.02 inch (0.51 mm) for two place decimals and ± 0.010 inch (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .140 inch (3.56 mm) for mounting options "J", "N", "R", "T", "S" and "V". The across flats dimension for hex drive socket shall be a metric dimension of 3.0 mm (0.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.

Finish. The finish designator shall be as specified in [A-A-59590](#). The finishes available for this CID specification sheet are as follows: "B" (black anodize), "C" (gold chemical film), "H" (hard black anodize), or "R" (clear chemical film).

Mounting. The mounting designators shall be as specified in [A-A-59590](#). The mounting options available for this CID specification sheet are as follows: "J" (rivet mounting holes), "N" (no mounting holes), "T" or "R" (tapped 0–80 UNF 2B holes), "V" or "S" (tapped 2–56 UNC 2B holes), or "G" or "M" (tapped M2.5 x.45 metric holes). Card holders using mounting option "J" may be shipped unassembled. See [figure 1](#) for mounting hole spacing requirements.

Mounting hole locations (when required). When mounting holes are specified in the PIN, two mounting holes are required on card holders less than 5.30 inches (134.6 mm) in length. Three mounting holes are required on card holders 5.30 inches (134.6 mm) or greater in length. The third mounting hole, when present, shall be centered on the mounting body. See [figure 1](#) and [table I](#) for mounting hole locations and spacing requirements.

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter through holes, countersunk 100 degrees by .190 to .200 inch (4.83 to 5.08 mm) diameter with an access/clearance counterbore hole of .190 to .200 inch (4.83 to 5.08 mm) diameter by .300 inch (7.62 mm) deep.

Rivets. This card holder uses rivet style B as specified in [A-A-59590](#) when rivet mounting is used.

Length, expanded, and relaxed dimensions. The length, expanded, and relaxed dimensions shall be as specified on [figure 1](#). The length designator shall be as specified in [A-A-59590](#) and the available lengths for this specification sheet are listed in [table I](#).

TABLE I. [Assembly dimensions \(see figure 1\)](#). 1/

PIN length designator	Dimension "LENGTH" ±.02 (0.5)	Dimension "A" (maximum)	Dimension "B" ±.03 (0.8)	Dimension "C" ±.005 (0.13)
28	2.8 (71.1)	3.10 (78.7)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.60 (91.4)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.10 (104.1)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.60 (116.8)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.10 (129.5)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.60 (142.2)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.10 (154.9)	5.05 (128.3)	3.65 (92.7)

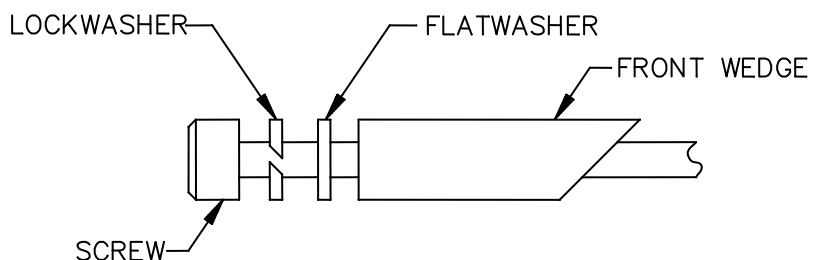
1/ Dimensions are in inches. Millimeters, in parenthesis, are given for information only.

Configuration. The configuration of a card holder shall be as specified in [table II](#). The details of a particular configuration consist of those on [figure 1](#), and may include those on [figures 2](#) and [3](#). Card holders not requiring the options described by [table II](#) shall leave the configuration position in the PIN blank.

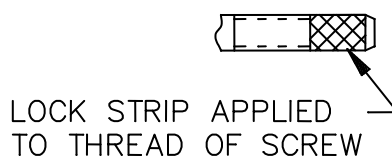
TABLE II. Configurations.

Configuration	Applicable figures	Hardware options
	1	No added options
W	1 and 2	Lockwasher and flat washer
E	1 and 3	Screw self-locking element
D	1, 2, and 3	Lockwasher, flat washer and screw self-locking element

Lockwasher and flat washer (see figure 2). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening of the card holder assembly from shock and vibration. Card holders requiring a lockwasher and flat washer shall include a suffix "W" in the PIN (see [classification](#) and [notes](#)).

FIGURE 2. Lockwasher and flat washer details.

Screw self-locking element (see figure 3). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock and vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see [classification](#) and [notes](#)).

FIGURE 3. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element configuration shall include a suffix "D" in the PIN (see [classification](#) and [notes](#)).

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

A-A-59590 – Holder, Electrical Card, Wedge Retainers, 3 Piece, Screw Actuated Drive, General Requirements For.

(Copies of these documents are available online at <http://quicksearch.dla.mil>.)

Ordering data. Ordering data shall be as specified in **A-A-59590**.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
61081 (1)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Birtcher) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com
61081 (2)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@accrmfg.com URL: www.accrmfg.com



Part number supersession data. This CID specification sheet PINs supersedes the following manufacturer's part numbers as shown in [table III](#). The CID PINs listed in table III are only for length designator "28". See [table IV](#) for CID PIN construction using other available lengths for this specification sheet. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/02	Vendor similar designator or type part number <u>1/</u>		
	CAGE 61081 <u>2/</u>	CAGE 61081 <u>3/</u>	CAGE 5BG68
BJ28	44-6-B	A250-2.80H	3370BA-2.80H
BN28	44-6-B-A	A250-2.80	3370BA-2.80
BT28	44-6-B-T	A250-2.80T0	3370BA-2.80T0
BV28	44-6-B-S	A250-2.80T2	3370BA-2.80T2
BG28	44-6-B-M	MA250-2.80TM2.5	3370MBA-2.80TM2.5
BJ28E	44-6-B-L	A250-2.80HL	3370BA-2.80HL
BN28E	44-6-B-A-L	A250-2.80L	3370BA-2.80L
BT28E	44-6-B-T-L	A250-2.80T0L	3370BA-2.80T0L
BV28E	44-6-B-S-L	A250-2.80T2L	3370BA-2.80T2L
BG28E	44-6-B-M-L	MA250-2.80TM2.5L	3370MBA-2.80TM2.5L
BJ28W	44-6-B-LF	WA250-2.80H	3370WBA-2.80H
BN28W	44-6-B-LF-A	WA250-2.80	3370WBA-2.80
BT28W	44-6-B-LF-T	WA250-2.80T0	3370WBA-2.80T0
BV28W	44-6-B-LF-S	WA250-2.80T2	3370WBA-2.80T2
BG28W	44-6-B-LF-M	MWA250-2.80TM2.5	3370MWBA-2.80TM2.5
BJ28D	44-6-B-LF-L	WA250-2.80HL	3370WBA-2.80HL
BN28D	44-6-B-LF-A-L	WA250-2.80L	3370WBA-2.80L
BT28D	44-6-B-LF-T-L	WA250-2.80T0L	3370WBA-2.80T0L
BV28D	44-6-B-LF-S-L	WA250-2.80T2L	3370WBA-2.80T2L
BG28D	44-6-B-LF-M-L	MWA250-2.80TM2.5L	3370MWBA-2.80TM2.5L
CJ28	44-6	250-2.80H	3370CG-2.80H
CN28	44-6-A	250-2.80	3370CG-2.80
CT28	44-6-T	250-2.80T0	3370CG-2.80T0
CV28	44-6-S	250-2.80T2	3370CG-2.80T2
CG28	44-6-M	M250-2.80TM2.5	3370MCG-2.80TM2.5
CJ28E	44-6-L	250-2.80HL	3370CG-2.80HL
CN28E	44-6-A-L	250-2.80L	3370CG-2.80L
CT28E	44-6-T-L	250-2.80T0L	3370CG-2.80T0L
CV28E	44-6-S-L	250-2.80T2L	3370CG-2.80T2L
CG28E	44-6-M-L	M250-2.80TM2.5L	3370MCG-2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/02	Vendor similar designator or type part number <u>1/</u>		
	CAGE 61081 <u>2/</u>	CAGE 61081 <u>3/</u>	CAGE 5BG68
CJ28W	44-6-LF	W250-2.80H	3370WCG-2.80H
CN28W	44-6-LF-A	W250-2.80	3370WCG-2.80
CT28W	44-6-LF-T	W250-2.80T0	3370WCG-2.80T0
CV28W	44-6-LF-S	W250-2.80T2	3370WCG-2.80T2
CG28W	44-6-LF-M	MW250-2.80TM2.5	3370MWCG-2.80TM2.5
CJ28D	44-6-LF-L	W250-2.80HL	3370WCG-2.80HL
CN28D	44-6-LF-A-L	W250-2.80L	3370WCG-2.80L
CT28D	44-6-LF-T-L	W250-2.80T0L	3370WCG-2.80T0L
CV28D	44-6-LF-S-L	W250-2.80T2L	3370WCG-2.80T2L
CG28D	44-6-LF-M-L	MW250-2.80TM2.5L	3370MWCG-2.80TM2.5L
HJ28	44-6-B3	HA250-2.80H	3370BH-2.80H
HN28	44-6-B3-A	HA250-2.80	3370BH-2.80
HT28	44-6-B3-T	HA250-2.80T0	3370BH-2.80T0
HV28	44-6-B3-S	HA250-2.80T2	3370BH-2.80T2
HG28	44-6-B3-M	MHA250-2.80TM2.5	3370MBH-2.80TM2.5
HJ28E	44-6-B3-L	HA250-2.80HL	3370BH-2.80HL
HN28E	44-6-B3-A-L	HA250-2.80L	3370BH-2.80L
HT28E	44-6-B3-T-L	HA250-2.80T0L	3370BH-2.80T0L
HV28E	44-6-B3-S-L	HA250-2.80T2L	3370BH-2.80T2L
HG28E	44-6-B3-M-L	MHA250-2.80TM2.5L	3370MBH-2.80TM2.5L
HJ28W	44-6-B3-LF	WHA250-2.80H	3370WBH-2.80H
HN28W	44-6-B3-LF-A	WHA250-2.80	3370WBH-2.80
HT28W	44-6-B3-LF-T	WHA250-2.80T0	3370WBH-2.80T0
HV28W	44-6-B3-LF-S	WHA250-2.80T2	3370WBH-2.80T2
HG28W	44-6-B3-LF-M	MWHA250-2.80TM2.5	3370MWBH-2.80TM2.5
HJ28D	44-6-B3-LF-L	WHA250-2.80HL	3370WBH-2.80HL
HN28D	44-6-B3-LF-A-L	WHA250-2.80L	3370WBH-2.80L
HT28D	44-6-B3-LF-T-L	WHA250-2.80T0L	3370WBH-2.80T0L
HV28D	44-6-B3-LF-S-L	WHA250-2.80T2L	3370WBH-2.80T2L
HG28D	44-6-B3-LF-M-L	MWHA250-2.80TM2.5L	3370MWBH-2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u>		
	CAGE 61081 <u>2/</u>	CAGE 61081 <u>3/</u>	CAGE 5BG68
RJ28	44-6-CC	R250-2.80H	3370CC-2.80H
RN28	44-6-CC-A	R250-2.80	3370CC-2.80
RT28	44-6-CC-T	R250-2.80T0	3370CC-2.80T0
RV28	44-6-CC-S	R250-2.80T2	3370CC-2.80T2
RG28	44-6-CC-M	MR250-2.80TM2.5	3370MCC-2.80TM2.5
RJ28E	44-6-CC-L	R250-2.80HL	3370CC-2.80HL
RN28E	44-6-CC-A-L	R250-2.80L	3370CC-2.80L
RT28E	44-6-CC-T-L	R250-2.80T0L	3370CC-2.80T0L
RV28E	44-6-CC-S-L	R250-2.80T2L	3370CC-2.80T2L
RG28E	44-6-CC-M-L	MR250-2.80TM2.5L	3370MCC-2.80TM2.5L
RJ28W	44-6-CC-LF	WR250-2.80H	3370WCC-2.80H
RN28W	44-6-CC-LF-A	WR250-2.80	3370WCC-2.80
RT28W	44-6-CC-LF-T	WR250-2.80T0	3370WCC-2.80T0
RV28W	44-6-CC-LF-S	WR250-2.80T2	3370WCC-2.80T2
RG28W	44-6-CC-LF-M	MWR250-2.80TM2.5	3370MWCC-2.80TM2.5
RJ28D	44-6-CC-LF-L	WR250-2.80HL	3370WCC-2.80HL
RN28D	44-6-CC-LF-A-L	WR250-2.80L	3370WCC-2.80L
RT28D	44-6-CC-LF-T-L	WR250-2.80T0L	3370WCC-2.80T0L
RV28D	44-6-CC-LF-S-L	WR250-2.80T2L	3370WCC-2.80T2L
RG28D	44-6-CC-LF-M-L	MWR250-2.80TM2.5L	3370MWCC-2.80TM2.5L

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).

2/ PINs listed are for CAGE 61081 (1).

3/ PINs listed are for CAGE 61081 (2).

PIN length examples. The CID PINs listed in table IV are for all available standard card holder lengths for this specification sheet. However, only one specific finish, mounting and configuration are listed (see PIN example for a break-down of the codes).

TABLE IV. Example of PIN with available length designators.

PIN designator AA59590/13	Vendor similar designator or type part number <u>1/</u> <u>2/</u>		
	CAGE 61081 <u>3/</u>	CAGE 61081 <u>4/</u>	CAGE 5BG68
BT28	44-6-B-T	A250-2.80T0	3370BA-2.80T0
BT33	44-7-B-T	A250-3.30T0	3370BA-3.30T0
BT38	44-8-B-T	A250-3.80T0	3370BA-3.80T0
BT43	44-9-B-T	A250-4.30T0	3370BA-4.30T0
BT48	44-10-B-T	A250-4.80T0	3370BA-4.80T0
BR53	44-11-B-T	A250-5.30ET0	3370BA-5.30ET0
BR58	44-12-B-T	A250-5.80ET0	3370BA-5.80ET0

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).

2/ Other lengths are available on request.

3/ PINs listed are for CAGE 61081 (1).

4/ PINs listed are for CAGE 61081 (2).

MILITARY INTERESTS:

Custodians:

Army – CR
Navy – EC
Air Force – 85
DLA – CC

Review Activity:

Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:
DLA – CC

Project 5998-2015-003

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.